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Reply Brief
PATENT

Atty. Docket No. P41-9321 --
SALK1320-3 (088802-1103)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

In re the Application of:

Evans, *et al.*

Serial No.: 09/526,298

Title: MULTIMERIC FORMS OF
MEMBERS OF THE
STEROID/THYROID
SUPERFAMILY OF RECEPTORS
WITH THE ULTRASPIRACLE
RECEPTOR

Filing Date: March 15, 2000

Group Art Unit: 1635

Examiner: Sean McGarry

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<p>CERTIFICATE OF MAILING</p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on the date below.</p> <p><u>Michelle Simpson</u> (Printed Name)</p> <p><u>Michelle Simpson</u> (Signature)</p> <p><u>July 15, 2002</u> (Date of Deposit)</p>

REPLY BRIEF

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants (herein, "Appellants") submit this Reply Brief (in triplicate) in response to the Examiner's Answer mailed on May 14, 2002 ("Paper No. 16"). No fee is believed due with the Reply Brief. If this is incorrect, please charge or credit Deposit Account No. 50-0872 for the appropriate amount.

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Grouping of Claims

In the Examiner's Answer, the Examiner has entered a new ground of rejection based on the assertion that "each and every claim is either specifically drawn to or specifically encompasses a nucleic acid based therapy." Examiner's Answer, page 7, lines 10-14 (emphasis added). It is impossible for Appellants to identify the specific claims which the Examiner considers to fall within each of these two groups, as the Examiner has failed to indicate which claims are allegedly "specifically drawn to" nucleic acid based therapy, and which claims allegedly "encompass" nucleic acid based therapy.

Appellants respectfully submit that, whichever claims fall into these two groups, the groups should be considered as standing or falling separately, as claims that expressly relate to nucleic acid based therapy may require a different analysis from claims that may encompass nucleic acid based therapy as one possible use in a spectrum of uses.

Argument

The sole rejection in the instant case is based on an alleged failure of the specification and supported claims to satisfy the enablement requirement of 35 U.S.C. §112, first paragraph. Appellants respectfully submit that the Examiner's interpretation of the claims, understanding of the enablement standard and consideration of the evidence provided by Appellants in response to the rejection are each fatally flawed. Appellants therefore respectfully request that the rejection be withdrawn or reversed.

The Examiner's interpretation of the claimed invention is not based upon the language of the claims as a whole, but rather upon what the Examiner considers to be "the nature of the invention itself" (Examiner's Answer, page 10, lines 3-7). It is the claims, and not some asserted "nature of the invention," that is the proper measure of the invention. The Examiner incorrectly focuses his/her analysis of the patentability of the claims by reading into the claims the nature of the invention.

Furthermore, the Examiner continues to misapply the enablement standard of 35 U.S.C. §112 by insisting that the specification must enable "gene therapy" because the claims allegedly "read on" or "embrace" "gene therapy." Examiner's Answer, pages 7-8. The enablement standard requires that the scope of enablement bear a reasonable correlation to the scope of the claims. *See, e.g., Johns Hopkins Univ. v. CellPro, Inc.*, 47 USPQ2d 1705, 1719 (Fed. Cir. 1998). The instant specification satisfies this standard. The enablement standard does not require that each and every possible manner for making and using the claimed invention be enabled.

Finally, the Examiner improperly dismisses Appellants' evidence that the teachings of the instant specification, together with knowledge in the art, was sufficient to meet the enablement standard of 35 U.S.C. §112. The Examiner improperly ignores the evidence offered by Appellants of the level of ordinary skill in the art at the time the instant application was filed by asserting that the evidence is allegedly "post filing art" that "cannot be used as evidence of

enablement.” Examiner's Answer, page 10. By doing so, the Examiner has failed to consider the totality of the record in the instant application.

The Examiner continues to improperly interpret the claimed invention by focusing on "nucleic acid based therapies"

Prior to the Examiner's Answer, the Examiner's rejection of the instant claims was based essentially on a single argument; that is, that the claims “are drawn to nucleic acid based therapies,” and that the gene therapy art is so unpredictable as to render the instant specification non-enabling. *See, e.g.*, Paper No. 9, page 3, first full paragraph; Paper No. 6, page 4, second paragraph. Now, however, the Examiner maintains the rejection by offering a new interpretation of the instant claims: that “each and every claim is either specifically drawn to or specifically encompasses a nucleic acid based therapy.” Examiner's Answer, page 7, lines 10-14 (emphasis added).

The Examiner's apparent (and belated) recognition of the fact that the phrase “nucleic acid based therapy” does not appear in each of the claims may well represent a step forward in properly interpreting the instant claims. However, the Examiner's contentions in this regard have now become badly muddled to the point that it is not clear exactly what position the Examiner is taking with regard to the claims. For example, the Examiner offers a contradictory opinion later in the Answer, stating that the claims must be interpreted to “clearly embrace” nucleic acid based therapies because “the nature of the invention itself... is clearly drawn to the manipulation of genetic material in a subject such that a beneficial/therapeutic gene product is expressed.”

Examiner's Answer, page 10, lines 3-10.

It is well established that the "invention" referred to in the enablement requirement of 35 U.S.C. §112 is the claimed invention. As such, it is the language of the claims, and not a "nature" of the invention derived from the specification, that is the measure of the invention. *See, e.g., Lindemann Maschinenfabrik v. American Hoist and Derrick Co.*, 221 USPQ 481, 489 (Fed. Cir. 1984) (the "question is whether the disclosure is sufficient to enable those skilled in the art to practice the claimed invention"). By interpreting the claims, not by their clear wording but by their "nature," the Examiner has failed to properly consider the claimed invention.

Instant claim 14 and claims dependent therefrom refer to "modulating expression of an exogenous gene in a subject." Instant claims 35 and 42 and claims respectively dependent therefrom refer to "inducing the expression of an exogenous gene in a subject". The claims at issue do not refer to a method of treatment, and thus the Examiner is incorrect in asserting that the claims are drawn to "nucleic acid based therapies." The instant claims, therefore, do not invoke the term "therapy," the dictionary definition of which refers to treatment of a disease. *See, e.g., The American Heritage® Dictionary of the English Language: 4th Edition*

Thus, contrary to the Examiner's assertions, the instant claims are not directed to nucleic acid therapy *per se*, but to any of a number of possible applications based on the realization that gene expression can be modulated using a receptor that, in the presence of the ultraspiracle receptor and a ligand, binds to hormone response elements. Appellants respectfully submit that the Examiner's interpretation of the claims is improper and overly narrow because the Examiner includes elements that are not present in the claims, and rejects the claims based on these

improperly included elements. *See*, MPEP §2111.01 (importing limitations not present in the claims is not a reasonable claim interpretation). Appellants also respectfully submit that the Examiner's reduction of the claimed invention to a particular "nature" is an improper interpretation of the claimed invention. Because the enablement rejection is premised upon this improper interpretation of the claims, the enablement rejection is improper and can not stand.

Based on an assertion that the claims embrace nucleic acid therapies, the Examiner erroneously asserts that the specification must enable gene therapy

The Examiner continues to demonstrate a flawed understanding of the standard by which enablement is properly measured. So long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, the enablement requirement of 35 U.S.C. §112, first paragraph is satisfied. *See, e.g., Johns Hopkins Univ. v. CellPro, Inc.*, 47 USPQ2d 1705, 1719 (Fed. Cir. 1998). It is not necessary that the specification enable each and every manner for making and using the claimed invention.

One of skill in the art may practice the claimed invention without the need to perform "gene therapy" or "nucleic acid based therapies" as those terms are used by the Examiner. Thus, whether or not the instant claims "read on" gene therapy is not probative of whether or not the claims comply with the enablement requirement. Appellants respectfully submit that, by focusing on the enablement of "gene therapy" with regard to the instant claims, the Examiner has failed to properly establish a *prima facie* case of lack of enablement of the instantly claimed invention.

The Examiner has failed to properly consider evidence that Applicants offered to show that the skilled artisan would readily acknowledge that methods for manipulating gene expression in cultured cells may be employed to manipulate gene expression in subjects

The Examiner concedes that the methods described in the instant specification for modulating gene expression in cultured cells do meet the enablement standard of 35 U.S.C. §112. *See*, Examiner's Answer, paragraph bridging pages 3-4. The skilled artisan would readily acknowledge that the only remaining step in modulating gene expression in a subject would be to introduce the cultured cells into a subject. *See, e.g.*, page 19, lines 29-35, and page 21, lines 23-28; *see also*, R.G. Crystal, *Science* 270: page 404, first paragraph. Such methods in which a gene construct is transferred to cells in the laboratory and the modified cells are then administered to the recipient are referred to in the art as “*ex vivo*” methods. *See, e.g.*, R.G. Crystal, *Science* 270: 404-410 (1995), Table 2 (describing successful *ex vivo* strategies). It is respectfully submitted that, as discussed in detail in Appellants Appeal Brief, the instantly claimed methods could be performed by, for example, inserting each of the elements referred to in the claims into cells *in vitro*, *e.g.*, in culture, and then introducing those cells into a subject for various purposes. *See, e.g.*, specification, page 19, lines 29-35, and page 21, lines 23-28. Accordingly, Appellants submit that the skilled artisan, in view of the specification, performing such *ex vivo* methods could readily practice the full scope of the instant claims.

Ex vivo gene transfer methods have long been practiced by those of skill in the art. Appellants cited a review publication (R.G. Crystal, *Science* 270:404 (1995)) that is indicative of

the knowledge of *ex vivo* strategies available to those of skill in the art at the time the instant application was filed.

The Examiner simply rejects without any consideration the proffered publication, saying it is "post filing art", which allegedly cannot be used as evidence of enablement for the instant invention. Examiner's Answer, page 10, final two lines. This review of the art, however, which discusses various successful *ex vivo* and *in vivo* gene transfer strategies published as early as 1990 (*see, e.g.*, article number 28 in the references cited by Crystal), was offered to show the state of the art as of the date of the application in question, and not as a supplement to the instant specification. As such, the publication represents evidence that must be considered by the Examiner. *See, e.g., Gould v. Quigg*, 3 USPQ2d 1302, 1305 (Fed. Cir. 1987) ([A later dated publication offered] as evidence of the level of ordinary skill in the art at the time of the application and as evidence that the disclosed device would have been operative" must be considered in evaluating the entire record).

Furthermore, Crystal is also cited as a demonstration of the success of *ex vivo* gene transfer methods when they are used in gene therapy. Even though Appellants disagree with the Examiner's assertion that only a demonstration of "gene therapy" will suffice to show enablement, Crystal provides such a demonstration by providing evidence that "gene therapy" methods are enabled by the specification when read by those of skill in the art. By simply dismissing Appellants' proffered evidence in response to the enablement rejection, the Examiner has failed to properly weigh the totality of the record with regard to enablement.

Appellants respectfully submit that, based on the knowledge of *ex vivo* strategies within the art, the skilled artisan would clearly understand and readily acknowledge that methods useful for manipulating gene expression in cultured cells may be employed to manipulate gene expression in subjects, as contemplated by the instant claims. The skilled artisan can readily perform the instantly claimed methods using only well known methods and with only a level of experimentation typically engaged in by the artisan. *See*, MPEP § 2164.01 (the fact that experimentation may be complex does not make it undue if the art typically engages in such experimentation). 35 U.S.C. §112 demands no more.

Conclusion

Appellants respectfully submit that, whether or not the Examiner is correct that “[n]ucleic acid based therapy is an unpredictable art and one of skill in the art is in need of specific guidance for any specif[ic] gene therapy” (Examiner's Answer, page 5, lines 13-15), this is irrelevant to the instant claims. The present invention is not directed to “any specific gene therapy,” but rather to methods for modulating expression of exogenous genes. Moreover, the skilled artisan can readily perform the instantly claimed methods using only well known methods and with only a level of experimentation typically engaged in by the artisan. Therefore, because the claims meet the enablement standard of 35 U.S.C. §112, first paragraph, Appellants respectfully request that the rejection be withdrawn or reversed.

For the reasons discussed above, the instant claims are in condition for allowance, and Appellants respectfully request that the rejections be withdrawn or reversed, and that the rejected

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claims, together with those claims that the Examiner has indicated are in allowable form, be allowed to issue.

Respectfully submitted,
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Dated: 7/15/02

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Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.

**(CA FC)
221 USPQ 481**



Headnotes

PATENTS

1. Patentability -- Invention -- In general (§ 51.501)

Pleading and practice in courts -- Issues determined -- In general (§ 53.501)

Statement by district court -- "But I am not certain in my own mind at this point whether or not these gentlemen on the '315 patent invented anything." reflects misconception of role of courts under 35 USC 103; question mandated by statute is not "invention," but patentability; moreover, court's role in relation to patentability does not require it to conclude whether something was or was not "invented," or whether court subjectively considers invention worthy of patent protection; court's role is actually more simple; under statute, it is to determine whether patent's challenger carried burden of establishing invalidity.

2. Patentability -- Anticipation -- In general (§ 51.201)

Anticipation is factual determination, reviewable under the "clearly erroneous" standard; anticipation requires presence in single prior art reference disclosure of each and every element of claimed invention, arranged as in claim; in deciding issue of anticipation, trier of fact must identify elements of claims, determine their meaning in light of specification and prosecution history, and identify corresponding elements disclosed in allegedly anticipating reference.

3. Pleadings and practice in courts -- Burden of proof -- Validity (§ 53.138)**Presumption from patent grant -- In general (§ 55.1)**

Statutory presumption of patent validity cannot "vanish" or be "weakened" and statutorily assigned burden of proof cannot be shifted; at same time, much confusion can be avoided by patentees who refrain from efforts to expand role of presumption beyond its burden-assigning and decisional approach-governing function; burden upon challenger of validity under 35 USC 282 is to introduce evidence of facts establishing invalidity, thus overcoming presumption; such evidence, if it is to carry the day, must be clear and convincing; because mere introduction of non-considered art, common phenomenon, does not "weaken" or otherwise affect presumption, there is no basis for adjusting required level of proof downward to "mere preponderance;" that clear and convincing standard may more easily be met when such non-considered art is more pertinent than cited art means that determination of whether patent challenger has met burden turns on relationship of uncited art to claimed invention.

4. Presumption from patent grant -- Patent Office consideration of prior art (§ 55.5)

District court's view that "the 'Field of Search' is exactly what it purports to be and nothing more, that 'References Cited' are patents found within field which were actually considered by the examiner and listed because he found them to be most relevant," is flawed; examiner could not determine which patents are "most relevant" without considering number which are less relevant.

5. Pleading and practice in courts -- Burden of proof -- Validity (§ 53.138)**Presumption from patent grant -- Patent Office consideration of prior art (§ 55.5)**

Because touchstone is whether uncited art is sufficiently more relevant than that cited to serve as evidence of obviousness, argument respecting presumption based on uncited art's classification is pointless; view is erroneous that assignee bore burden of proving that uncited art had been considered; to extent that examiner's consideration of uncited art is material, burden is on challenger to show that prior art had not been considered; challenger meets that particular burden by showing that uncited art is more relevant than that cited, just as patentee defeats uncited art by showing that its relevancy is equal to or less than that cited.

6. Presumption from patent grant -- Patent Office consideration of prior art (§ 55.5)

Although courts will give due respect to examiner's evaluation of prior art, they are not bound by it; patentees desiring benefit of examiner's evaluation of originally uncited art have available reexamination procedures under 35 USC 301-307.

7. Patentability -- New use or function -- Analogous art (§ 51.553)

Waste compactor art is relevant to art of crushing massive metal scrap.

8. Interference -- In general (§ 41.01)**Patentability -- Evidence of -- Solution by several parties (§ 51.465)**

35 USC 135, establishing and governing interference practice, recognizes possibility of near simultaneous invention by two or more equally talented inventors working independently, occurrence that may or may not be indication of obviousness when considered in light of all circumstances.

9. Patentability -- Evidence of -- Solution by several parties (§ 51.465)

Independent suggestion for invention, proposed five years after invention was made, is simply too late to be relevant to determination of whether invention would have been obvious at time it was made.

10. Patentability -- Evidence of -- Commercial success -- In general (§ 51.4551)

Showing of commercial success of claimed invention, wherever such success occurs, is relevant in resolving issue of non-obviousness; commercial success cannot by itself establish nonobviousness; however, it was error for district court, having concluded that claimed invention would have been obvious from prior art, to look only to see whether showing of commercial success was so overwhelming as to overcome that conclusion; all evidence must be considered before conclusion on obviousness is reached.

11. Patentability -- Aggregation or combination -- New or better result (§ 51.157)

Although not required in statute, evidence of unexpected results may be strong support for conclusion of nonobviousness.

12. Patentability -- Anticipation -- Combining references (§ 51.205)

Fact that patent specifically stated that it disclosed and claimed combination of features previously used in two separate devices alone is not fatal to patentability; claimed invention must be considered as whole, and question is whether there is something in prior art as whole to suggest desirability, and thus obviousness, of making combination.

13. Patentability -- Invention -- In general (§ 51.501)

Fact that claimed invention may employ known principles does not in itself establish that invention would have been obvious; most inventions do.

14. Specification -- Sufficiency of disclosure (§ 62.7)

Enablement is legal issue; question is whether disclosure is sufficient to enable those skilled in art to practice claimed invention; hence specification need not disclose what is well known in art.

15. Pleading and practice in courts -- Issues determined -- Validity and Infringement (§ 53.505)

District court should decide validity and infringement and should enter judgment on both issues when both are raised in same proceeding; to enter judgment on less than all dispositive issues can be inefficient, risking as it does necessity of district court and parties undertaking participation in another long and costly court proceeding.

Particular patents -- Shearing Machines

3,945,315, Lindemann, Hydraulic Scrap Shearing Machine, holding of invalidity of claims 1, 2, and 4, reversed.

Case History and Disposition:

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**Appeal from District Court for the Southern District of Texas,
Sterling, J.**

Action by Lindemann Maschinenfabrik GMBH, against American Hoist and Derrick Company, Harris Press and Shear Division, and Commercial Metals Company, for patent infringement, in which defendants counterclaim for declaration of patent invalidity. From judgment for defendants, plaintiff appeals. Reversed and remanded.

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Attorneys:

David Toren, New York, N.Y. (Jules Goldberg, New York, N.Y., on the brief) for appellant.

Michael E. Macklin, Houston, Tex. (Edward W. Goldstein, Houston, Tex., on the brief) for appellee.

Judge:

Before Markey, Chief Judge, Cowen, Senior Circuit Judge, and Bennett, Circuit Judge.

Opinion Text

Opinion By:

Markey, Chief Judge.

Appeal from the May 23, 1983, judgment of the District Court for the Southern District of Texas, sitting without a jury and holding invalid claims 1, 2, and 4 of appellant's (Lindemann's) U.S. Patent No. 3,945,315 issued March 23, 1976 and entitled "Hydraulic Scrap Shearing Machine". We *reverse* and *remand*.

BACKGROUND

The Patent

United States Patent No. 3,945,315 ('315) issued March 23, 1976 on an application filed April 16, 1975. Peter Dahlem and Hubert Milles are named co-inventors and Lindemann is listed as the assignee. The '315 patent claims a priority filing date, under 35 U.S.C. §119, of May 13, 1974, based on West German application 2423003.

Hydraulic scrap shears, the subject matter of the '315 patent, are a principal tool of the scrap metal industry. The shears are large, often weighing several hundred tons, and are designed to cut scrap metal into smaller, uniform pieces for recycling.

There are two basic types of metal processed in the shears: "peddler's scrap" and "rigidly massive scrap".

Peddler's scrap consists of light to medium gauge metal objects, such as light tubing, automobile bodies, and window frames. It makes up a large percentage of the available scrap and is comparatively easy to process.

Rigidly massive scrap consists of heavy gauge metal objects, such as boilers, oil tanks, and railroad cars. Because of thickness or internal reinforcements, massive scrap objects are difficult to process. Traditionally, massive scrap had been processed in very large, tremendously powerful shears, or had been pretreated, e.g., with oxyacetylene torches, to reduce its size or weaken its internal reinforcements. Either approach was costly and time-consuming. Many scrap dealers handled peddler's scrap exclusively.

The Invention

The '315 patent contains five claims. Claim 1, the only independent claim, is written in Jepson form:

1. In a hydraulic scrap-shearing machine comprising an open feed channel having two opposing side walls, scrap shears at one end of said feed channel and having a mouth narrower than the normal width of said feed channel between said side walls, hydraulic means for moving at least one of said side walls towards the other of said side walls whereby scrap placed in said feed channel can be squashed to a final width no greater than the width of said mouth of said scrap shears, and a feeder ram for pushing scrap along said feed channel into said mouth of said scrap shears, the improvement consisting of said movable one of said side walls being divided into two longitudinal portions of different lengths, and said hydraulic means comprising a main hydraulic ram having a working face forming the longer portion of said movable side wall, and an auxiliary hydraulic ram having a working face forming the shorter portion of said movable side wall

just upstream of said mouth of said scrap shears, said auxiliary hydraulic ram being capable of operation independently of said main hydraulic ram.

The claimed structure is shown in Figure 2 of the '315 patent:

Tabular, graphic, or textual material set at this point is not available. Please consult hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.

In operation, the combined rams (17, 19) advance into the feed channel (9), crushing and compacting the scrap (12) against the other, non-movable sidewall (14). With peddler's scrap, the two rams move the entire distance together. However, when the channel contains rigidly massive scrap, such as shown at (12), the two rams are quickly brought to a standstill by the scrap's resistance to crushing. The auxiliary ram (19) is then moved forward independently of the main ram (17). The auxiliary ram, having a smaller working surface than the combined rams, is capable of applying a greater crushing force to the scrap. The auxiliary ram cracks and buckles the scrap directly in front

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of it to crush the leading end of the scrap so it can be pushed through the mouth of the shears. That action also propagates that effect to an adjacent area (H) of the scrap. The structural integrity of the scrap is thus overcome by the auxiliary ram, thereby reducing the resistance of the portion of the scrap in contact with the main ram, allowing both rams to continue forward to crush the scrap to a width less than that of the shear mouth. The feeder ram (11) then pushes the crushed scrap through the mouth of the shear and under the shear blades (at 5) and clamp (at 6). The clamp holds the crushed scrap in place during cutting.

The claimed invention allows one machine of moderate size to process both peddler's and rigidly massive scrap, and to do so quickly, inexpensively, and without the need for pretreating massive scrap. Unchallenged testimony described crushing accomplished in minutes of scrap that would have required hours to crush in earlier larger machines and that could not have been crushed without pretreatment.

District Court Proceedings

On October 5, 1980, Lindemann sued appellees (collectively "Amhoist") for infringement of claims 1, 2, and 4 of the '315 patent. Amhoist asserted non-infringement and counterclaimed for a declaratory judgment that the '315 patent is invalid.

A three day trial was conducted on June 21-23, 1982. On May 23, 1983, the district court entered FINDINGS OF FACT AND CONCLUSIONS OF LAW, the introduction of which stated:

After hearing all the evidence the Court concludes that the patent is invalid. Plaintiff simply incorporated two admittedly well-known metal compression features in the same machine and sought to gain a monopoly in the use of knowledge that had previously existed in the public domain. The Court finds and concludes that the claimed invention of the Plaintiff does not meet the statutory or constitutional requirements established for patent protection. Specifically, the machine was an obvious aggregation of prior art which produced no new or synergistic result. It failed materially to promote the progress of science and the useful arts.

The district court entered 60 findings and 20 conclusions indicating its view that the

'315 patent is invalid under 35 U.S.C. §102(b), 35 U.S.C. §103, and 35 U.S.C. §112.

[1] On May 24, 1983 the district court entered judgment declaring the '315 patent invalid. The judgment is silent respecting infringement, though the district court had stated from the bench at end of trial:

Well, if the '315 patent is valid, I think the proof is clear that it has been infringed and it is pretty clear that it was done with knowledge, conscious knowledge to the point of willful infringement. ¹

Issues

I. Whether the district court erred in finding the inventions set forth in claims 1, 2, and 4 anticipated by U.S. Patent 3,763,770 ('770) under 35 U.S.C. §102(b).

II. Whether the district court erred in concluding that the inventions set forth in claims 1, 2, and 4 would have been obvious under 35 U.S.C. §103.

III. Whether the district court erred in concluding that the '315 patent specification was non-enabling under 35 U.S.C. §112.

IV. Whether this court on remand should order entry of a judgment that claims 1, 2, and 4 were infringed by Amhoist.

OPINION

Of the district court's 60 findings, 57 were those submitted by Amhoist before trial. The source of findings does not render the "clearly

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erroneous" standard of Fed.R.Civ.P. 52(a) any less applicable or binding. *Rosemount, Inc. v. Beckman Instruments, Inc.*, Nos. 83-947, 1238, 1251, slip op. at n. 4, 221 USPQ 1, 5 n. 4 (Fed. Cir. Feb. 9, 1984). In adhering firmly to that rule, however, an apparent absence of personal attention need not be disregarded. See *Amstar Corporation v. Domino Pizza, Inc.*, 615 F.2d 252, 258, 205 USPQ 969, 974 (5th Cir. 1980), *Wilson v. Thompson*, 593 F.2d 1375, 1384 n.16 (5th Cir. 1979). Under such circumstances, one court has indicated that strict scrutiny is appropriate. See *Smith International, Inc. v. Hughes Tool Co.*, 664 F.2d 1373, 215 USPQ 592 (9th Cir. 1982). Where, as here, the adopted findings are those proposed by a party *before trial*, a greater chance is created that those findings may be clearly erroneous. Indeed, the present findings include some for which no supporting evidence was submitted at trial.

Having written them, Amhoist argues strenuously for retention of the findings behind the shield of the "clearly erroneous" rule, and repeatedly reminds us of our duty to review the findings favorably and of the burden resting on the appellant. However salutary, the rules governing review do not envision an appellate court shirking its duty to reverse an appealed judgment that is clearly based on legal error and unsupported by evidence in the record.

We review judgments, not the rhetoric in opinions. Nonetheless, the language in an opinion, or in a set of findings and conclusions, may indicate that numerous harmful errors of law produced an erroneous conclusion, and that the decisional approach of the district court led to a judgment not supported in law by the facts of record. That happened here.

I. Anticipation

[2] Anticipation is a factual determination, reviewable under the "clearly erroneous"

standard. *Carmen Industries Inc. v. Wahl and Vibra Screw Inc.*, No. 83-683, slip op., 220 USPQ 481 (Fed. Cir. December 27, 1983), *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), F.R.C.P. 52(a). "A finding is 'clearly erroneous' when although there is evidence to support it, the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed." *United States v. U.S. Gypsum Co.*, 333 U.S. 364, 395, 76 USPQ 430, 444 (1948); *SSIH Equip. S.A. v. USITC*, 718 F.2d 365, 381, 218 USPQ 678, 692 (Fed. Cir. 1983).

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); *SSIH Equip. S.A. v. USITC*, 718 F.2d 365, 218 USPQ 678 (Fed. Cir. 1983). In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference. *SSIH*, *supra*; *Kalman*, *supra*.

Lindemann contends the district court's finding on anticipation is clearly erroneous and we agree.

The finding of anticipation rested on a series of mistakes. The two gags of the '770 patent do not correspond to "said sidewall being divided into two portions of different lengths." The gags are beyond the end of the wall and constitute no part of a feed channel sidewall as claimed. The court found the '770 patent's magazine corresponded to the claimed "open feed channel having two opposing walls," but the "movable" wall of the magazine is movable only to adjust the magazine's width and not, as the claim requires, to crush scrap. Moreover, the findings that the magazine is the feed channel and that the gags are parts of a sidewall of the channel contradict each other. Nor does the shear anvil of the '770 patent, as the court stated, correspond to the "opposite sidewall" of the claim. Nor do the cylinder assemblies of the '770 patent move one sidewall of a feed channel toward the other as the claims require. Nor are the '770 patent's cylinder and gag (equated by the court to the claimed auxiliary ram) located "just upstream of said mouth." They are within the shear area and are thus downstream from where a mouth narrower than the feed channel would be if the '770 patent disclosed such a mouth, which it does not. Similarly, the other cylinder and gag of the '770 patent do not form a "longer portion of said movable sidewall." Nor can the channel that receives rod cuttings after shearing be equated, as did the district court, with the shear mouth claimed. ²

The '770 patent discloses an entirely different device, composed of parts distinct from

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those of the claimed invention, and operating in a different way to process different material differently. Thus there is presented here no possible question of anticipation by equivalents. See *Tate Engineering, Inc. v. United States*, 477 F.2d 1336, 1342, 175 USPQ 115, 119 (Ct. Cl. 1973). It is clear, moreover, that the device disclosed in the '770 patent, had it come after issuance of the '315 patent, could not be found an infringement of the asserted claims. The district court's analysis treated the claims as mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.

On the unchallenged evidence of record, we are left with a "definite and firm conviction" that the district court's finding of anticipation was mistaken and therefore

clearly erroneous. That part of its judgment relating to invalidity under 35 U.S.C. §102(b) must therefore be reversed.

II. Obviousness

A. Presumption of Validity

Guided by remarks found in then applicable court opinions, the district court: (1) viewed the statutory presumption of validity, 35 U.S.C. §282, as "vanished" or "severely weakened" when Amhoist introduced prior art not cited by the examiner; (2) reduced the required burden of proof, in light of that introduction, to a "mere preponderance"³; and (3) implicitly required Lindemann to prove that the uncited art had been considered by the PTO.

[3] (1) Courts are not, of course, at liberty to repeal a statute, or to legislate conditions diminishing its effect. Hence the statutory presumption cannot "vanish" or be "weakened" and the statutorily assigned burden of proof cannot be shifted. *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). At the same time, much confusion can be avoided by patentees who refrain from efforts to expand the role of the presumption beyond its burden-assigning and decisional approach-governing function.

(2) The burden upon the challenger of validity under 35 U.S.C. §282 is to introduce evidence of facts establishing invalidity (thus overcoming the presumption). *American Hoist & Derrick Company v. Sowa & Sons, Inc.*, No. 83-555/564, Slip op., 220 USPQ 763 (Fed. Cir. January 12, 1984). That evidence, if it is to carry the day, must be clear and convincing. *Radio Corp. v. Radio Laboratories*, 293 U. S. 1, 21 USPQ 353 (1934). Because the mere introduction of non-considered art (a common phenomenon) does not "weaken" or otherwise affect the presumption, there is no basis for adjusting the required level of proof downward to a "mere preponderance". That the clear and convincing standard may more easily be met when such non-considered art is *more* pertinent than the cited art means that determination of whether the patent challenger has met its burden turns on the relationship of the uncited art to the claimed invention. *Stratoflex, supra.*; *Railroad Dynamics Inc. v. A. Stucki*, No. 83-951/961, slip op., 220 USPQ 929 (Fed. Circ. January 25, 1984), *Solder Removal v. USITC*, 582 F.2d 628, 199 USPQ 129 (CCPA 1978).

[4] (3) Similarly, the parties have devoted much unnecessary argument to the question of whether Lindemann is entitled to a presumption that the examiner had considered the uncited art because it is found in the classes and subclasses searched by the examiner (and because, as Lindemann says, the examiner had cited that art in examining an earlier application). Authorities are cited on both sides.⁴

[5][6] Because the touchstone is whether the uncited art is sufficiently more relevant than that cited to serve as evidence of obviousness, argument respecting a presumption based on the uncited art's classification is pointless. The argument here, moreover, appears to have led to the erroneous view that Lindemann bore the burden of proving that the uncited art had been considered. To the extent that the examiner's consideration of uncited art is material, the burden is on the challenger to show that "that prior art had *not* been considered." *Richdel Inc. v. Sunspool Corp.*, 714 F.2d 1573, 219 USPQ 8 (Fed. Cir. 1983). The challenger meets that particular burden by showing that the uncited art is more relevant than that cited, just as the

patentee defeats the uncited art by showing that its relevancy is equal to or less than that cited.⁵

B. Scope and Content of the Prior Art⁶

"The scope of the prior art has been defined as that 'reasonably pertinent to the particular problem with which the inventor was involved'." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983) (and cases cited therein). The district court defined the problem here broadly, i.e., as the problem of compressing waste materials. That finding is clearly erroneous. The inventors' problem was the crushing of massive metal scrap. Nothing in the prior art relied on as invalidating had any relation whatever to the crushing of massive metal scrap.

[7] Lindemann attempts too much in arguing that waste compactors are non-analogous. Though the problems differ, both parties manufacture both products and both are exhibited at the same trade shows. Art that is analogous may or may not render a claimed invention obvious. As indicated below, it does not do so here.

The content of the prior art discussed in Amhoist's brief is that disclosed in the '770 patent (discussed above) and in British Patent No. 1,230,014 ('014).⁷

The '014 patent discloses a compactor for particulate waste, e.g., garbage. The loose waste is pressed into the wide mouth of a funnel by a circular plate. The smaller end of the funnel communicates with a container to receive the compacted waste. A small finger-like ram is coaxial with, and normally moves with, the plate. When the material fills the funnel so tightly that the plate can add no more, the separately operable small ram can be advanced ahead of the main ram and into the waste material. The small ram has a diameter smaller than that of the funnel outlet. When the small ram has pressed a core of waste material through the funnel outlet, the remaining waste material is loosened and additional waste material may then be pressed into the funnel by the plate and ram working together.

[8][9] In a conclusion of law, the district court stated that it had considered the facts in light of the inquiries mandated by *Graham v. John Deere & Co.*, 383 U. S. 1, 148 USPQ 459 (1966), and that a strong indication supporting its conclusion of obviousness was "the fact that three individuals independently created the designs which resulted in development of the split ram shears which are the subjects of this lawsuit." Because the statute, 35 U.S.C. §135, (establishing and governing interference practice) recognizes the possibility of near simultaneous invention by two or more equally talented inventors working independently, that occurrence may or may not be an indication of obviousness when considered in light of all the circumstances. See *E.I. DuPont de Nemours & Co. v. Berkley & Co.*, 620 F.2d 1247, 205 USPQ 1 (8th Cir. 1980). In this instance, it clearly is not. Two of the three individuals were Dahlem and Milles, the co-inventors listed on the '315 patent. The third was an Amhoist employee who claimed at trial to have proposed the split ram in January of 1979, more than five years after the invention was made by Lindemann's assignors, nearly three years after the '315 patent issued, and well after Amhoist's employee Bleeland had in England observed and photographed a Lindemann shear embodying the claimed invention. Accepting, as we must, the district court's crediting of the testimony respecting independent suggestion by an Amhoist employee, that suggestion was simply too late to have been relevant to a determination of whether

the invention would have been obvious at the time it was made, 35 USC §103, which was more than five years earlier.

C. Commercial Success .

[10] The district court improperly discounted the weight due the evidence of commercial success because that success occurred abroad. A showing of commercial success of a claimed invention, wherever such success occurs, is relevant in resolving the issue of nonobviousness. *Weather Engineering Corp. v. United States*, 614 F.2d 281, 204 USPQ 41 (Ct.Cl. 1980).

The evidence at trial showed that the claimed invention accounted for 30% of Lindemann's total sales worldwide for a total sales price of over \$20,000,000 (30 machines at approximately \$667,000 each). The district court correctly stated that commercial success

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cannot by *itself* establish nonobviousness. However, having concluded that the claimed invention would have been obvious from the prior art, the court looked only to see whether the showing of commercial success was so overwhelming as to overcome that conclusion. That was error. All evidence must be considered *before* a conclusion on obviousness is reached. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983), *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 219 USPQ 857 (Fed. Cir. 1983), *Gore & Associates v. Garlock*, 721 F.2d 1540, 220 USPQ 303, 314 (Fed. Cir. 1983). The commercial success here shown is evidence that the claimed invention was not obvious to those who paid 2/3 of a million dollars for each machine to escape the previously perceived need for pretreatment of massive scrap.

D. Unexpected Results

[11] The district court ignored the unexpected or surprising results achieved by the claimed invention. Though no requirement for such results is present in the statute, 35 U.S.C. §103, *Chore-Time Equipment, Inc. v. Cumberland Corp.*, 713 F.2d 774, 218 USPQ 673 (Fed. Cir. 1983), evidence of unexpected results may be strong support for a conclusion of nonobviousness. *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 219 USPQ 857 (Fed. Cir. 1983).

Neither the district court nor Amhoist's brief on appeal has a word to say about the unexpected results asserted by Lindemann, namely, the rapid crushing of rigidly massive scrap in a moderate sized scrap shear without pretreatment. That the claimed inventions achieve those results is unchallenged. Neither the district court nor Amhoist suggest anything in any piece of prior art, or in the prior art as a whole, that would lead one skilled in the art to expect achievement of such results.

The record is clear that no earlier shears of any size, and no prior art device of any type could economically process rigidly massive scrap without pretreatment. Unchallenged testimony of experts was characterized by surprise and amazement that the claimed invention was able to accomplish that feat. That it could do so in minutes, and with a moderate sized structure, were further sources of surprise. That those skilled in the art had previously believed pretreatment of rigidly massive scrap was required was also uncontradicted.

It is further clear from the uncontradicted evidence that the claimed invention

achieved new and unexpected results nowhere suggested in the prior art, and that the district court overlooked the effect of that achievement in reaching its determination of obviousness. In so doing, the district court erroneously focussed its inquiry "solely on the product created, rather than on the obviousness or nonobviousness of its creation." *General Motors Corp. v. U. S. International Trade Commission*, 687 F.2d 476, 482-83, 215 USPQ 484, 489 (CCPA 1982).

The district court viewed the claimed invention as merely the "aggregation" of two different sized rams. Finding the first in one place in the prior art and the second in another place, the district court entered this conclusion:

Plaintiff simply put the two features in the same machine and connected them as was necessary depending on whether the scrap was small or large. It used a known connection idea. The '315 machine possessed one known feature to operate in a known way to produce a known result to deal with the first scrap situation and another known feature operating in a known manner to produce a known result to deal with the second. Clearly, this was an obvious solution using already appreciated or obvious features to solve the problem of how to develop a machine that could handle both types of scrap most economically.

[12] The '315 patent specifically stated that it disclosed and claimed a combination of features previously used in two separate devices. That fact alone is not fatal to patentability. The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *In re Imperato*, 486 F.2d 585, 179 USPQ 703 (CCPA 1973); *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). That question must here be answered in the negative.

Nothing in the references alone or together suggests the claimed invention as a solution to the problem of crushing rigidly massive scrap. There was nothing whatever of record, therefore, to support the district court's statement that the claimed machine possessed "another known procedure operating in a known manner to produce a known result" or its conclusion that Lindemann "knew * * * that a small sidewall ram could most economically process large scrap."

[13] The '014 patent deals only with soft, easily compactible, particulate material. Though that patent discloses a two-ram structure and the principle that loose material when too tightly compacted can be loosened by injection of a thin ram into the material, the claims here are not drawn to the mere

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concept of two differently sized rams, or to the known principles governing the effects of large and small rams (or to the propagation of force principle discussed at trial). That the claimed invention may employ known principles does not in itself establish that the invention would have been obvious. Most inventions do. Nothing in the '014 patent would suggest that rigidly massive scrap could be rapidly and economically crushed and sheared without pretreatment.

The '770 patent, as above indicated, deals only with holding brittle material within a shear by compression. Nothing in the '770 patent suggests that making the crushing wall of a metal scrap shear in two independently operable parts, with a smaller part adjacent the mouth of the shears, would enable the crushing of massively rigid scrap without

pretreatment.

Nothing, moreover, in the '014 or '770 patents adds anything to the prior art considered by the examiner. As above indicated, the '315 specification itself recognized the separate presence in the prior art of feed channels with one solid moveable crushing wall and of feed channels with a small ram in one of two fixed sidewalls. The examiner cited as "of interest" the Pioch patent which, like the '014 patent, disclosed two independently operable pushers in a waste compactor.

Applying the standard of Rule 52(a), Fed.R. Civ. P., we are persuaded that the findings underlying the district court's conclusion of obviousness are clearly erroneous. Further, that conclusion resulted from errors of law in interpreting the claims and in consideration and application of the prior art. That part of the appealed judgment relating to 35 U.S.C. §103 must therefore be reversed.

III. Enablement

The district court concluded that the '315 patent was non-enabling because it did not disclose a hydraulic and electrical system for controlling the operation of the rams.

[14] Enablement is a legal issue. *Raytheon v. Roper Corp.*, No. 83-851, Slip op., 220 USPQ 592 (Fed. Cir. December 30, 1983). The question is whether the disclosure is sufficient to enable those skilled in the art to practice the claimed invention, hence the specification need not disclose what is well known in the art. *In re Myers*, 410 F.2d 420, 161 USPQ 668 (CCPA 1969).

The unchallenged evidence of record establishes that hydraulic and electrical systems for metal scrap shears were well known to those skilled in the art, and that the selection and connection of the elements of such systems was simply a matter of plumbing.

Amhoist points to testimony relating to 800 man hours it expended in developing its split ram shear. It also points to the dismantling of the accused machines by its two customers, whereby the rams are operated together as one sidewall and asserts that the split ram structure of the claimed invention has thus been abandoned by those customers.

⁸ There is no evidence indicating that the dismantling was due to difficulty in designing a suitable hydraulic-electric control system.

It is clear that no undue experimentation was required in practicing the claimed invention. *W.L. Gore & Assoc. Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1557, 220 USPQ 303, 316 (Fed. Cir. 1983). Amhoist spent approximately 100 more hours than did Lindemann in designing the entire split ram shear, including the hydraulic-electric control system. There was no evidence of the amount of time needed to develop the control system itself. Of the total time Amhoist spent on developing its shear, it devoted an undisclosed attempting to create a "hydraulically operated pin" to connect the two rams. That pin was unnecessary. The '315 patent's specification discloses a simple mechanical pin to achieve the same connection. Further, Amhoist conceded at oral argument that nothing in the claims fails of enablement in the specification.

The district court erred in its conclusion that the '315 patent specification is non-enabling and that part of the appealed judgment relating to 35 U.S.C. §112 must be reversed.

IV. Infringement

Relying on the statement made by the district court at close of trial, and on the uncontested evidence clearly establishing Amhoist's knowledge of the '315 patent and its conscious decision to disregard it, Lindemann requests this court to "affirm" the district

court's "decision" on infringement. Lindemann's difficulty is that judgments, not statements, are appealed and the district court made no finding entered no judgment on infringement.

[15] A district court should decide validity and infringement and should enter a judgment on both issues when both are raised in the same proceeding. *Stratoflex v. Aeroquip*,

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713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). To enter judgment on less than all dispositive issues can be inefficient, risking as it does the necessity of the district court and the parties undertaking participation in another long and costly proceeding.

The case must be remanded for the district court to make a finding on infringement. Whether the present record supports a findings corresponding with the court's end-of-trial statement, and whether further trial on the issue is therefore unnecessary, is for the district court to determine in the first instance. Upon any finding of infringement and entry of judgment on that finding, the district court will doubtless consider issuance of an injunction against further infringement and an accounting.

Decision

The district court's judgment is reversed and the case is remanded for further proceedings consistent with this opinion.

Reversed and remanded.

Footnotes

Footnote 1. The district court stated at the same time, "But I am not certain in my own mind at this point whether or not these gentlemen on the '315 patent invented anything." The statement reflects a misconception of the role of the courts under 35 U.S.C. §103. The question mandated by statute is not "invention"; it is patentability. See Rich, *Escaping the Tyranny of Words -- Is Evolution in Legal Thinking Impossible?*, 60 JPOS 71, May-June/APLA Bull. 237 (1978).

Moreover, the court's role in relation to patentability does not require it to conclude whether something was or was not "invented," or whether the court subjectively considers the invention "Worthy" of patent protection. The court's role is actually more simple. Under the statute, it is to determine whether the patent's challenger carried the burden of establishing invalidity. 35 U.S.C. §282. See *Environmental Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983), *Rosemount, Inc. v. Beckman Instruments*, No. 83-947/1238/1251, Slip. op., 221 USPQ 1 (Fed. Cir. February 9, 1984).

Footnote 2. Amhoist says Lindemann's Australian counsel "conceded" that the '770 patent cited by the Australian examiner was a "paper anticipation." The assertion is meaningless. First, the '315 patent's counterpart issued in Australia. Second, the language and laws of other countries differ substantially from those in the United States.

Footnote 3. The district court in a conclusion of law also stated that "under any burden of persuasion the '315 patent is invalid because of obviousness." As indicated in the text,

we disagree.

Footnote 4. The district court indicated the view that "the 'Field of Search' is exactly what it purports to be and nothing more, that 'References Cited' are the patents found within the field which were actually considered by the examiner and listed because he found them to be most relevant." That view is flawed. The examiner could not determine which patents are "most relevant" without considering a number which are less relevant.

Footnote 5. Though the courts will give due respect to the examiner's evaluation of prior art, they are not of course bound thereby. Patentees desiring the benefit of the examiner's evaluation of originally uncited art have available the reexamination procedures under 35 U.S.C. §§301-307. Those procedures were not employed in this case.

Footnote 6. The level of skill is not of record and is not discussed in the briefs.

Footnote 7. The district court additionally discussed the S-501 shear produced by Amhoist and incorporating a tapered feed channel with a single side ram about one foot from the shear mouth. Amhoist correctly recognizes on appeal the absence of need to discuss the S-501 shear.

Footnote 8. The record does not reflect the rationale underlying a vigorously fought lawsuit and its accompanying expense in the light of two sales and both purchasers' cessation of use of the invention.

- End of Case -

FULL TEXT OF CASES (USPQ2D)

All Other Cases

Gould v. Quigg (CA FC) 3 USPQ2d 1302 Gould v.**Quigg****U.S. Court of Appeals Federal Circuit****3 USPQ2d 1302****Decided June 25, 1987****No. 86-1274****Headnotes****PATENTS****1. Patentability/Validity — Adequacy of disclosure [Enablement] (§ 115.11)**

Federal district court did not err, in reversing finding by patent examiner and by Board of Patent Appeals and Interferences that patentee had presented no evidence to overcome prima facie case of lack of enablement, by accepting testimony of expert who, in determining his opinion as to whether disclosure was enabling at time of application's filing date, relied upon technical article that was published after filing date.

2. Patentability/Validity — In general (§ 115.01)

Federal district court lacks authority, in action under 35 USC 145 to set aside decision of Board of Patent Appeals and Interferences affirming examiner's rejection of claims, to direct issuance of patent, but rather court should authorize Commissioner of Patents and Trademarks "to issue such patent on compliance with the requirements of law."

Case History and Disposition:

**Appeal from District Court for the District of Columbia, Flannery, J.;
229 USPQ 1 .**

**Action by Gordon Gould against Donald J. Quigg, Commissioner of
Patents and Trademarks, under 35 USC 145. From decision directing
Commissioner to issue patent, Commissioner appeals. Affirmed in part,
vacated in part, and remanded.**

Attorneys:

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**Roy H. Wepner of Lerner, David, Littenberg, Krumholz & Mentlik,
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them on brief), for appellee.**

Judge:

Before Bennett, Senior Circuit Judge, and Bissell and Archer, Circuit Judges.

Opinion Text

Opinion By:

Bissell, Circuit Judge.

This is an appeal from the judgment of the United States District Court for the District of Columbia directing the Commissioner of Patents and Trademarks to issue a patent containing claims 1-15 of U.S. Application No. 823,611 (T611) filed August 11, 1977, "insofar as they relate to a gas discharge amplifier." *Gould v. Mossinghoff*, 229 USPQ 1, 14 (D.D.C. 1985). We affirm-in-part, vacate-in-part, and remand.

BACKGROUND

The application in suit arrives at this court after a long, arduous journey through the patent continuation, division, and interference practices in the U.S. Patent and Trademark Office (PTO), starting with an application filed on April 6, 1959, U.S. Application No. 804,540 (T540). *See* 35 U.S.C. §§ 120, 121, and 135. While the T540 application disclosed many inventions in laser technology, the T611 application relates only to gas discharge light amplifiers that employ atomic and subatomic particle collisions in gases to amplify light by stimulated emission of radiation. 1

During prosecution of the T611 application the PTO rejected the claims under 35 U.S.C. § 112 since the T540 application failed to meet the disclosure and enablement requirements of this section of the statute. Upon Gould's appeal to the Patent and Trademark Office Board of Patent Appeals and Interferences (Board), the Board affirmed those rejections by the examiner. Gould instituted a civil action on August 11, 1977, under 35 U.S.C. § 145 (1976) seeking an order from the district court authorizing the Commissioner of Patents and Trademarks to issue to Gould a patent based on his application.

In light of new evidence presented in the district court proceeding, the district court found that "the decisions by the examiner and the Board were incorrect." 229 USPQ at 9 (FF 87). 2 The district court found that "[t]he examiner had no evidentiary basis to question the adequacy of Gould's disclosure, and Gould's disclosure should have been accepted as presumptively enabling." *Id.* at 9-10 (FF 86). Furthermore, the district court went on to conclude that the specification of Gould's patent application contained "a written description of the claimed invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same." *Id.* at 11, 13 (FF 94, CL 4). The district court then *directed* the Commissioner to issue to Gould a patent including claims 1 through 15 as set forth in the application. *Id.* at 14 (FJ 3). General familiarity with the district court's findings of fact and conclusions of law is presumed.

ISSUES

The Commissioner raises the following issues in this appeal:

1. Whether the district court erred in concluding that the examiner and the Board lacked a reasonable basis for doubting the enablement in Gould's application.
2. Whether the district court erred, as a matter of law, in crediting certain testimony upon which it based its conclusion that the T540 application contained an enabling disclosure for a gas discharge light amplifier, *i.e.*, whether the T540 application enabled one skilled in the art to achieve a population inversion in the amplifying system.
3. Whether the district court erred, as a matter of law, in *directing* as opposed to *authorizing* the Commissioner to issue a patent.

OPINION

"An applicant dissatisfied with the decision of the Board of Patent Appeals and Interferences in an appeal under section 134 . . . may . . . have remedy by civil action against the Commissioner in the United States District Court for the District of Columbia. . . . The court may adjudge that such applicant is entitled to receive a patent for his invention, as specified in any of his claims involved in the decision of the Board of Patent Appeals and Interferences . . . and such adjudication shall authorize the Commissioner to issue such patent on compliance with the requirements of law." 35 U.S.C. § 145 (1982 & Supp. III 1985). While the evidentiary record before the Board serves as the "evidentiary nucleus" of the district court proceeding in a section 145 action, the parties are entitled to submit additional evidence. *Fregeau v. Mossinghoff*, 776 F.2d 1034, 1037, 227 USPQ 848, 850 (Fed. Cir. 1985); *see also Hoover Co. v. Coe*, 325 U.S. 79, 83 [65 USPQ 180, 183] (1945) ("[In an action under 35 U.S.C. § 63, the predecessor to section 145,] a formal trial is afforded on proof which may include evidence not presented in the Patent Office." [Footnote omitted.]). Furthermore, in such an action, the district court can set

aside the Board's fact findings only if they are clearly erroneous, but if new evidence is presented on a disputed question of fact, a *de novo* fact finding is made by the district court. *Fregeau*, 776 F.2d at 1038, 227 USPQ at 851; *see also Morgan v. Daniels*, 153 U.S. 120, 125 (1894) ("the decision [in the Patent Office] must be accepted as controlling upon [a] question of fact in any subsequent suit between the same parties, unless the contrary is established by testimony which in character and amount carries thorough conviction").

Enablement under 35 U.S.C. § 112, first paragraph, is a question of law. *See, e.g., Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 960 n.6, 220 USPQ 592, 599 n.6 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 835 [225 USPQ 232] (1984). However, in this case, extensive additional evidence directed not to the ultimate legal question of enablement, but to its numerous factual underpinnings

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was presented to the district court. Accordingly we review the district court's judgment in this case, as we would any bench trial, for clearly erroneous findings of fact and errors of law. *Fregeau*, 776 F.2d at 1037, 227 USPQ at 851; *see Fed. R. Civ. P. 52(a); Atlas Powder Co. v. E. I. DuPont de Nemours & Co.*, 750 F.2d 1569, 1573, 224 USPQ 409, 411 (Fed. Cir. 1984) (appellant must establish that the district court's legal conclusions were erroneous, or that the underlying findings were clearly erroneous); *see also Anderson v. City of Bessemer City, North Carolina*, 470 U.S. 564, 573 (1985).

I

The gist of the Commissioner's contention on appeal is that the Board's affirmance of the examiner's rejection of the T611 application should be affirmed because the examiner had a reasonable basis for doubting the enablement of Gould's T540 application and Gould presented no evidence either before the Board or the district court to rebut this *prima facie* case of lack of enablement. Even if the Commissioner is correct in his contention that the examiner presented before the Board a *prima facie* case of lack of enablement and that the district court erred when it held to the contrary, an automatic reversal of the judgment of the district court does not follow. Since the Commissioner does not prevail on his contention that Gould presented no evidence before the district court to overcome the asserted *prima facie* case of lack of enablement, we need not, and do not, address the issue of whether the examiner had a reasonable basis for doubting the enablement of the T540 application.

II

The Commissioner contends that, as a matter of law, the district court erred in relying on a post-1959 expert opinion (Dr. Franken's testimony) based upon two rationales when (a) one rationale (a post-1959 technical article) is irrelevant as a matter of law, and (b) the other rationale (a post-1959 laser device) was found insufficient by the district court. Dr. Franken, Gould's expert, testified that the disclosure in the T540 application, when considered in conjunction with the state of the art as it existed as of the application's April 6, 1959, filing date, was sufficient to enable one of ordinary skill to build, without undue experimentation, a sodium-mercury light amplifier. As its initial argument, the Commissioner would have this court hold that the district court should have totally disregarded Dr. Franken's testimony because his opinions concerning the state of the art

in 1959 were not based upon his having personally built a laser circa 1959. In addition, since the trial took place some 26 years after Gould's filing date, Dr. Franken's opinion was based essentially upon knowledge acquired by him during the intervening years between 1959 and 1985.

The Commissioner points to competing expert testimony to support the Board's decision. While the experts did hold different opinions, the district court specifically commented on Dr. Franken's credibility, stating:

The court accords more weight to the testimony of Dr. Franken than to the testimony of Dr. Feldman. Both experts are highly qualified, but in the court's opinion, Dr. Franken's credentials are more impressive. His manner of testifying and the reasons given for his opinions have convinced the court as the factfinder to accept his expert testimony over the conflicting expert testimony of Dr. Feldman.

226 USPQ at 10 (FF 93).

The district court was fully aware of the 26-year time interval between Gould's filing date and the trial and must be presumed to have considered it in finding the facts. Perhaps one reason the district court credited Dr. Franken's testimony over that of Dr. Feldman is that Dr. Franken was a person skilled in the relevant art at the time of Gould's filing date. *Id.* at 2 (FF 6-7). In any event, as stated in *Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 552, 222 USPQ 4, 6 (Fed. Cir. 1984), "[t]he credibility of the witnesses and the weight to be given to their testimony and the other evidence in the record, however, is a matter for the trier of the facts." *See also Anderson*, 470 U.S. 564.

In attempting to discount the testimony of Dr. Franken, the Commissioner argues that as of Gould's filing date, no person had built a light amplifier or measured a population inversion in a gas discharge. "The mere fact that something has not previously been done clearly is not, in itself, a sufficient basis for rejecting all applications purporting to disclose how to do it." *In re Chilowsky*, 29 F.2d 457, 461, 108 USPQ 321, 325 (CCPA 1956); *see also In re Ferens*, 417 F.2d 1072, 1074, 163 USPQ 609, 611 (CCPA 1969).

The Commissioner argues that Dr. Franken's testimony is worthless, because the foundation for his expert opinion was based solely upon his reliance on (1) a technical article published after Gould's filing date

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and (2) a laser device built after the filing date, both of which the Commissioner contends must be disregarded. This argument as to the worthlessness as a whole of Dr. Franken's testimony is without merit.

[1] As to the technical article, it is true that a later dated publication cannot supplement an insufficient disclosure in a prior dated application to render it enabling. In this case, the later dated publication was not offered as evidence for this purpose. Rather, it was offered as evidence of the level of ordinary skill in the art at the time of the application and as evidence that the disclosed device would have been operative. *Compare In re Hogan*, 559 F.2d 595, 605, 194 USPQ 527, 537 (CCPA 1977) ("This court has approved use of later publications as evidence of the state of the art *existing on the filing date* of an application." (footnotes omitted) (emphasis in original)) *with In re Glass*, 492 F.2d 1228, 1232, 181 USPQ 31, 34 (CCPA 1974) (later publications which add to the knowledge of the art cannot be used to supplement an insufficient disclosure); *cf. Hirschfield v. Banner*, 462 F.Supp. 135, 142, 200 USPQ 276, 281 (D.D.C. 1978), *aff'd*, 615 F.2d 1368

(D.C. Cir. 1980), *cert. denied*, 450 U.S. 994 [210 USPQ 776] (1981) ("factual evidence directed to the amount of time and effort and level of knowledge required for practice of the invention from the disclosure alone . . . can be expected to rebut a prima facie case of nonenablement"); *In re Pottier*, 376 F.2d 328, 330 n.1, 153 USPQ 407, 408 n.1 (CCPA 1967) ("[W]hether or not an invention would be deemed operative by one of ordinary skill in the art is determined, not at the time the invention was made but rather (at the earliest) at the time of the examiner's call for proof."). It was not legal error for the district court to accept the testimony of an expert who had considered a later publication in the formulation of his opinion as to whether the disclosure was enabling as of the time of the filing date of the T540 application.

There is no disagreement between the district court and the Commissioner that the laser device built after the filing date does not duplicate the amplifier disclosed by Gould in 1959 and that the construction of the device had doubtful probative value. The district court concluded that "[the evidence regarding the Optelecom device] does not prove by a preponderance of the evidence either that Gould's disclosure is enabling or that sodium and mercury without argon will work." *Id.* at 10 (FF 95). The finding that one piece of evidence, offered by the prevailing party, is not probative, does not require reversal of the district court's conclusion on enablement. Dr. Franken gave underlying reasons to support his opinion "[q]uite apart from [his] consideration of the [post-1959 technical article] and apart from the [post-1959 laser device]" that Gould's specification was enabling to one of ordinary skill in the art. Appendix at 205.

Thus, regardless of whether the examiner was correct in questioning enablement during prosecution, once a full trial on the issue occurred that flushed out the actual state of the art and level of experimentation, the district court reached a distinct and more informed conclusion on enablement. We find no legal error in the district court's reliance on Dr. Franken's testimony to support its conclusion of enablement.

III

[2] Turning now to the issue of whether the district court has authority to direct the issuance of a patent, we conclude it does not. An action under 35 U.S.C. § 145 is in essence an action to set aside a decision of the Board and to resolve questions of patentability to the extent issues are raised at trial. *See Hoover Co. v. Coe*, 325 U.S. 79, 85 [65 USPQ 180, 183] (1945) (The issue was whether the district court had jurisdiction to review a final rejection of a claim for the purposes of provoking a subsequent interference.); *Fregeau*, 776 F.2d at 1037, 227 USPQ at 851 ("[I]t cannot seriously be contended that a § 145 action is other than one to overturn the board's decision."). It matters not that additional evidence is permitted in a civil action under section 145, allowing the district court to make *de novo* fact findings. *See In re Fisher*, 448 F.2d 1406, 1407, 171 USPQ 292, 293 (CCPA 1971) ("As we have often pointed out, we pass only on rejections actually made and do not decree the issuance of patents."). We presume that the Commissioner will follow a proper order issued by the district court and perform the duties imposed upon the PTO by statute. *See Hoover*, 325 U.S. at 88 [65 USPQ 184].

CONCLUSION

Since the Commissioner has not convinced this court that any finding of fact is clearly erroneous, or that there are errors of law, that portion of the district court's judgment setting aside the Board's decision is affirmed. However, since the district court's order

directed the Commissioner to issue a patent for the T611 application, we vacate the

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order to the extent that it so *directs* and remand for issuance of an order that "shall authorize the Commissioner to issue such patent on compliance with the requirements of law." 35 U.S.C. § 145 (1982 & Supp. III 1985).

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

Footnotes

Footnote 1. A more detailed treatment of the technology can be found in prior decisions related to this application. *Gould v. Mossinghoff*, 215 USPQ 310 (D.D.C. 1982), *rev'd*, 711 F.2d 396, 219 USPQ 383 (D.C. Cir. 1983), *on remand*, 229 USPQ 1 (D.D.C. 1985). Court decisions involving patent applications containing essentially the same disclosure as the T611 application, but claiming different inventions and involving different issues have been numerous. *See Gould v. Control Laser Corp.*, 705 F.2d 1340, 217 USPQ 985 (Fed. Cir.), *cert. denied*, 464 U.S. 935 [220 USPQ 385] (1983); *In re Gould*, 673 F.2d 1385, 213 USPQ 628 (CCPA 1982); *Gould v. Hellwarth*, 472 F.2d 1383, 176 USPQ 515 (CCPA 1973); *Gould v. Schawlow*, 363 F.2d 908, 150 USPQ 634 (CCPA 1966); *Patlex Corp. v. Mossinghoff*, 585 F.Supp. 713 [220 USPQ 342] (E.D. Pa. 1983); *aff'd in part and vacated in part*, 758 F.2d 594, 225 USPQ 243 (Fed. Cir.), *reh'g granted in part*, 771 F.2d 480, 226 USPQ 985 (Fed. Cir. 1985).

Footnote 2. FF ___ represents Finding of Fact; CL ___ represents Conclusion of Law; FJ ___ represents Final Judgment.

- End of Case -

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therapy

SYLLABICATION: ther·a·py

PRONUNCIATION:  thər'ə-pē

NOUN: Inflected forms: pl. **ther·a·pies**

1. Treatment of illness or disability. **2.** Psychotherapy.
3. Healing power or quality: *the therapy of fresh air and sun.*

ETYMOLOGY: New Latin *therapia*, from Greek *therapeia*, from *therapeuein*, to treat medically. See therapeutic.

classmates
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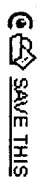
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